

CLAIMS

- 5 1. An antiinfective-free formulation for prophylaxis of intramammary infection comprising a seal formulation to provide an anti infective-free physical barrier in the teat canal. *281*
2. A formulation as claimed in claim 1 wherein the seal formulation comprises a non-toxic heavy metal salt in a gel base.
- 10 3. A formulation as claimed in claim 2 wherein the seal formulation contains at least 40% by weight of the heavy metal salt.
4. A formulation as claimed in claim 3 wherein the seal formulation contains from 50% to 75% by weight of the heavy metal salt.
- 15 5. A formulation as claimed in claim 4 wherein the seal formulation contains approximately 65% by weight of the heavy metal salt.
6. A formulation as claimed in *claim 2* ~~any of claims 2 to 5~~ wherein the salt is bismuth sub-nitrate. *1*
- 20 7. A formulation as claimed in *claim 28* ~~any of claims 1 to 6~~ wherein the base is a gel based on aluminium stearate. *1*
- 25 8. A formulation as claimed in *claim 28* ~~any of claims 1 to 7~~ wherein the base includes liquid paraffin as a vehicle.
- 30 9. An antiinfective-free formulation substantially as hereinbefore described with reference to the Examples.

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10. An antiinfective-free method of prophylactic treatment of mammary disorders in non-human animals during an animals' dry period by sealing the teat canal with a seal formulation to provide a physical barrier in the teat canal.
11. A prophylactic method of controlling infection of the mammary gland by a mastitis-causing organism comprising sealing the gland with a seal formulation to provide a physical barrier in the teat canal.
- 10 12. A method as claimed in claim 10 or 11 wherein the seal formulation comprises a non-toxic heavy metal salt in a gel base.
13. A method as claimed in any of claims 10 to 12 wherein the seal formulation contains at least 40% by weight of the heavy metal salt.
- 15 14. A method as claimed in claim 13 wherein the seal formulation contains from 50% to 75% by weight of the heavy metal salt.
15. A method as claimed in claim 14 wherein the seal formulation contains approximately 65% by weight of the heavy metal salt.
- 20 16. A method as claimed in any of claims 10 to 15 wherein the salt is bismuth sub-nitrate.
- 25 17. A method as claimed in any of claims 10 to 16 wherein the base is a gel based on aluminium stearate.
18. A method as claimed in any of claims 10 to 17 wherein base includes liquid paraffin as a vehicle.
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19. An antiinfective-free method of prophylactic treatment of mammary disorders substantially as hereinbefore described with reference to the Examples.
- 5 20. A process for preparing a seal formulation comprising the steps of adding a non-toxic heavy metal salt to a gel base in at least two separate stages.
21. A process as claimed in claim 19 wherein a first portion of heavy metal salt is added to the gel base in a first stage and a second portion of the heavy metal salt is added to the gel base containing the first portion of the heavy metal salt.
- 10 22. A process as claimed in claim 21 wherein the weight ratio of the second portion of the heavy metal salt to the first portion of the heavy metal salt is at least 1:1.
- 15 23. A process as claimed in claim 22 wherein the weight ratio is approximately 2:1.
- 20 24. A process as claimed in any of claims 20 to 23 wherein the seal formulation contains at least 40% by weight of the heavy metal salt.
- 25 25. A process as claimed in claim 24 wherein the seal formulation contains from 50% to 75% by weight of the heavy metal salt.
26. A process as claimed in any of claims 20 to 25 wherein the seal formulation contains approximately 65% by weight of the heavy metal salt.
- 30 27. A process as claimed in any of claims 20 to 26 wherein the salt is bismuth sub-nitrate.